REMARKS

Reconsideration of the above-identified application is requested in view of the remarks that follow.

Since this response has been filed within two months after the October 19, 2004 mailing date of the Final Rejection in this application, a timely Advisory Action is requested.

In the October 19, 2004, Office Action, the Examiner rejected claims 24-26 under 35 U.S.C. §103(a) as being unpatentable over the Janssen et al. patent publication in view of the Lu et al. '324 patent. Claim 27 was rejected under 35 U.S.C. §103(a) as unpatentable over the Janssen et al./Lu et al. reference combination, and further in view of the Kaneko '588 patent. Claim 28 was rejected under 35 U.S.C. §103(a) as unpatentable over the Janssen et al./Lu et al. reference combination, and further in view of the Takamira et al. '418 patent.

For the reasons set forth below, it is believed that claims 24-28 patentably distinguish over the reference combinations cited by the Examiner.

Applicant's independent claim 24 recites a silicon-backed microdisplay that improves the work function balance of the device. More specifically, independent claim 24 recites that the silicon side of the microdisplay includes a silicon substrate and a silicon-side conductive layer disposed directly on the silicon substrate and a silicon-side passivation layer, between 2000-6000 angstroms thick, disposed directly on the silicon-side conductive layer. The glass side of the claim 24 microdisplay includes a cover glass, a glass-side conductive layer disposed directly on the cover glass and a glass-side passivation layer that is disposed directly on the glass-side conductive layer and that is 300-900 angstroms thick and comprises a material selected from a group of oxides listed in claim 24.

That is, new independent claim 24 defines a silicon-backed microdisplay that has a silicon substrate side having specific physical features that have specific physical relationships with one another; the glass side of the claimed structure also has specific physical characteristics that have a specific physical relationship with one another. As recited in claim 24, the combination of specific physical characteristics and physical relationships, both individually on the silicon substrate side of the microdisplay structure and on the glass side of the microdisplay

structure, and in the combination of the silicon substrate side and the glass side structures, results in a work function balance for the overall microdisplay structure that is in the range of approximately 0.2-0.4eV, an improvement over the conventional work balance function for silicon-backed microdisplay devices.

Claim 24 also recites that the microdisplay structure includes liquid crystal material that is disposed directly between the silicon-side passivation layer and the glass-side passivation layer. That is, other than the liquid crystal material, there is no intervening structure between the silicon-side passivation layer and the glass-side passivation layer.

Upon careful review of the Janssen et al. patent publication, Applicant continues to be of the good faith belief that this references neither teaches nor suggests the specific silicon-backed mircrodisplay device structure having the work function balance recited in Applicant's independent claim 24.

With reference to its Figs. 1 and 2, the Examiner cites the Janssen et al. publication as disclosing a silicon-side conductive layer 12 disposed directly on a silicon die 10 and a silicon-side passivation layer 24 disposed directly on the silicon-side conductive layer 12. The examiner also cites the Janssen et al. publication as disclosing a glass sheet 22, a glass-side conductive layer 20 formed directly on the glass sheet 22 and a glass-side passivation layer 26 formed directly on the glass-side conductive layer 20. The Examiner then goes on to cite the Janssen et al. publication as disclosing liquid crystal material 16 disposed directly between the silicon-side passivation layer 24 and the glass-side passivation layer 26.

However, as shown in Figs. 1 and 2 of the Jansenn et al. publication, a rubbed polyimide orientation layer 14 is formed between the silicon-side passivation layer 24 and the liquid crystal material 16. A rubbed polyimide orientation layer 18 is also formed between the glass-side passivation layer 26 and the liquid crystal material 16. Therefore, the liquid crystal material 16 is not disposed directly between the silicon-side passivation layer and the glass-side passivation layer, as recited in Applicant's claim 24.

This distinction is significant because the specific structure recited in claim 24 provides a specific work balance function, also as recited in claim 24.

Furthermore, Applicant's dependent claims 25-28 recite further specific features of the claim 24 microdisplay device that are neither taught nor suggested by the Jansenn et al reference or the Lu et al. reference, whether considered individually or in combination. For example, claim 27 recites that the glass-side conductive layer formed directly on the glass sheet includes Indium-Tin-Oxide and has a characteristic resistance in the range of 100-500 ohms/square and a light transmissivity of 90% or greater. Claim 28 recites that the combination of the glass-side passivation layer formed directly on the glass-side conductive layer and the glass-side conductive layer formed directly on the glass sheet has an overall transmissivity of 90% or greater and a reflectivity of less than 1%.

For the reasons set forth above, Applicant believes that all claims currently pending in this application patentably distinguish over the prior art. Therefore, it is requested that this amendment be entered and that the application be passed to allowance.

Respectfully submitted,

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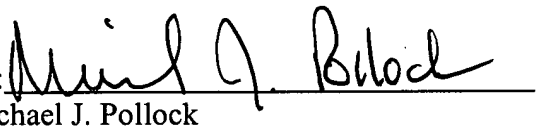
Dated: December 17, 2004

By: 
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